

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 89-119
NPDES NO. CA0037672

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

NORTH POINT WATER POLLUTION CONTROL PLANT
CITY AND COUNTY OF SAN FRANCISCO

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The City and County of San Francisco, hereinafter called the discharger, submitted a report of waste discharge dated January 20, 1989 for reissuance of NPDES permit No. CA 0037672.
2. The North Point Water Pollution Control Plant (WPCP) treats exclusively wet weather flow consisting of a combination of domestic and industrial wastewater mixed with storm water runoff, all containing pollutants.
3. The treated wastewater is discharged through four forty-eight inch diameter outfalls which terminate 800 feet offshore, two at the end of Pier 33 and two at Pier 35. The discharges are submerged at a depth of 17-26 feet below mean lower low water.
4. Wet weather operation of the North Point WPCP depends upon the coordinated operation of all the Bayside combined wastewater control system facilities. These facilities consist of the North Shore Outfall Consolidation, North Point WPCP, North Shore Pump Station, Channel Outfall consolidation, Channel Pump Station, Islais Creek South Side Outfall consolidation, and the Southeast WPCP. (See attached Drawing A & B).
5. Wet weather flows are intermittent in nature and subject to a high degree of variability throughout the wet weather season. Based on past rainfall records, the North Point WPCP will be operated approximately 30-40 times per wet season, with the duration of each operation expected to average approximately 12 hours at a maximum flow rate of 140 mgd.
6. Wet weather flow in excess of the storage and treatment capacity of the combined Bayside wastewater control system is discharged through wet weather diversion structures. These overflows are regulated by NPDES Permit No. CA0038610 adopted by the Board.

7. The North Point WPCP will provide the capability to treat dry weather wastewater from the North Point area in the event of emergency circumstances making treatment at the North Point WPCP preferable to treatment at the Southeast WPCP. Any such discharge will be governed by the requirements contained in the Southeast WPCP Permit No. CA0037664.
8. The discharge is presently governed by Waste Discharge Requirements, Order No. 83-47, which allow discharge into San Francisco Bay.
9. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay and contiguous waters.
10. The beneficial uses of San Francisco Bay and contiguous water bodies are:
 - Industrial Service Supply
 - Industrial Process Supply
 - Navigation
 - Water Contact Recreation
 - Non-Contact Water Recreation
 - Ocean Commercial and Sport Fishing
 - Wildlife Habitat
 - Preservation of Rare and Endangered Species
 - Fish Migration
 - Fish Spawning
 - Shellfish Harvesting
 - Estuarine Habitat
11. An Operations and Maintenance Manual is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, this manual should be kept updated to reflect significant changes in plant facilities or activities.
12. The Order serves as a NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEOA) pursuant to Section 13389) of the California Water Code.
13. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

14. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY, ORDERED, that the discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Discharge at any point where the wastewater does not receive an initial dilution of at least 10:1 is prohibited.
2. Discharge of dry-weather waste from the North Point Water Pollution Control Plant is prohibited.

B. Effluent Limitations

1. The discharge of effluent in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Instan- taneous Maximum</u>
a. Settleable Matter	ml/1-hr	0.5	1.5
b. Oil & Grease	mg/l	20	40
c. Total Chlorine Residual (1)	mg/l		0.0
d. Total Coliform	MPN/100 ml	240	10,000

- (1) Requirement defined as below the limit of detection in standard test methods.
2. The discharge shall not have a pH of less than 6.0 nor greater than 9.0.
3. Effluent shall be essentially free of material that is floatable or will become floatable upon discharge.
4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays shall achieve a 90 percentile value of not less than 50% survival based on the ten most recent consecutive samples.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:
 - a. Floating, suspended, or deposited macroscopic particulated matter or foam;

- b. Bottom deposits or aquatic growths;
 - c. Alternation of temperature, turbidity, taste, odor, or apparent color beyond present natural background levels;
 - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
 - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
- a. Dissolved oxygen 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
 - b. Dissolved sulfide 0.1 mg/l maximum
 - c. pH Variation from natural ambient pH by more than 0.5 pH units.
 - d. Un-ionized ammonia 0.025 mg/l as N Annual Median
 0.16 mg/l as N Maximum
3. The discharger shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.


D. Provisions

1. The discharge of toxic substances shall be minimized through diligent implementation of a source control program and proper municipal wastewater treatment. The discharger shall maintain a program which will identify and minimize sources of toxic substances resulting from accidental spills and inadequate storage or handling of hazardous materials.
2. The discharger shall undertake all reasonable efforts to operate the Bayside combined wastewater control system to its maximum capability to meet the following goals: (1) minimize untreated overflows in compliance with other NPDES permits adopted by this Board; (2) maximize secondary treatment of wastewater at the Southeast WPCP within the effluent limitations set by this Board.
3. The requirements prescribed by this Order supersede the requirements prescribed by Order No. 84-47. Order No. 84-47 is hereby rescinded.
4. When concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply:

$$\text{Mass Emission Limit (in lbs/day or kg/day)} = \text{Concentration Limit in mg/l} \times (8.34 \text{ or } 3.79) \times \text{Actual flow in mgd averaged over the time interval to which the limit applies.}$$
5. The discharger shall comply with all sections of this Order immediately upon adoption.
6. The discharger shall review and update its Operations and Maintenance Manual annually, or in the event of significant facility or process changes, shortly after such changes have occurred. Annual revisions, or letters stating that no changes are needed, shall be submitted to the Board by July 15 of each year. A time schedule for completion of the initial revision shall be submitted by July 15, 1990. Documentation of operator input and review shall accompany each annual update.
7. The discharger shall review and update by July 15, 1990 and annually thereafter its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

8. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.
9. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements, dated December, 1986.
10. This Order expires July 19, 1994. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the Code of California Regulations not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.
11. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on July 19, 1989.



STEVEN R. RITCHIE
Executive Officer

Attachments:

Standard Provisions & Reporting
Requirements, December 1986
Self-Monitoring Program
Resolution 74-10

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

CITY AND COUNTY OF SAN FRANCISCO
NORTH POINT WATER POLLUTION CONTROL PLANT

NPDES NO. CA0037672

ORDER NO. 89-119

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT Station

Description

A-001

At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT Station

Description

E-001

At any point in the outfall from the treatment facilities between the point of discharge and the point at which all waste tributary to that outfall is present. (may be the same as E-00-D)

E-001-D

At any point in the disinfection facilities for Waste E-001 at which point adequate contact with the disinfectant is assured.

C. RECEIVING WATERS

Offshore Stations

Description

NP-1

At a point in San Francisco Bay, located within the waste plume between Piers 33 and 35. (See Figure 1)

NP-2

At a point in San Francisco Bay, located within the dilution field at 600 feet from Pier 31. (see figure)

NP-3

At a point in San Francisco Bay, located within the dilution field at 600 feet from Pier 37. (See Figure 1)

NP-4

At a point in San Francisco Bay, located within the dilution field between Piers 33 and 35. (see figure 1)

NP-5

At a point in San Francisco Bay,
located 1.0 miles NE from Station
N-1. (see figure 1)

D. LAND OBSERVATIONS (Odor Control)

Stations

Description

P-1 thru
P'-n'

Located at the corners and
midpoints of the perimeter fence-*line*
lince surrounding the treatment
facilities. (A sketch showing the
locations of these stations will
accompany each report).

I SCHEDULE OF SAMPLING, ANALYSES AND OBSERVATIONS

- A. The frequency of sampling and analysis shall be that given as Table I.
- B. The discharger is required to perform observations, sampling and observations, sampling and analyses according to the following schedule:

Receiving Waters

1. Offshore and shoreline receiving water samples shall be collected during daylight hours. Tide conditions should be recorded at sampling.
2. Water column samples will be collected at Stations N1 through N5 during each sampling period.
3. Supplemental sampling will be performed at Stations NP1 through NP5 on the same day if there is any violation of receiving water limitations on analysis (of pH, D.O., temperature, and standard observations) performed in situ or on the sampling boat.

III. REPORTING

- A. Tabulations of the data to include for each constituent total number of analyses, maximum, minimum, and average values for each period. The data shall be reported on either the EPA Form 3320-1, or the State Form Q-2.⁽¹⁾
- B. The Annual Receiving Water Data Summary (S-39)⁽¹⁾ and the Annual Waste characteristics and loading summary (S-37)⁽¹⁾ shall be filed for each constituent, monthly.⁽²⁾

C. A Requirement compliance Summary, showing violation ratios, listing all constituents shall be filed monthly.

(1) The format of data presentation is subject to modification upon agreement between the discharger and the Executive Officer of the Regional Board.

(2) The frequency of filing these summaries is subject to modification upon agreement between the discharger and the Executive Officer.

I, Steven R. Ritchie, Executive Officer do hereby certify the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in the Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Board Order No. 89-119.
2. Has been ordered by the Board on July 19, 1989.
3. May be revised by the Executive Officer pursuant to federal regulations (40 CFR 122.63); other revisions must be ordered by the Board.



STEVEN R. RITCHIE
Executive Officer

Effective Date 7/19/89

Attachments:

Table I and Legend for Table

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS												
Sampling Station	A-001		E-001		E-001-D				NP1 (5)	To NP 5		P
TYPE OF SAMPLE	C-X	G	C-X	G	C-X	G			G			O
Flow Rate (mgd)	cont.		cont.									
BOD, 5-day, 20°C or COD (mg/l & kg/day)	E		E									
Chlorine Residual & Dos- age (mg/l & kg/day)				H								
Settleable Matter (ml/l-hr. & cu. ft./day)		H(1)		H(1)								
Total Suspended Matter (mg/l & kg/day)	E		E									
Oil and Grease (mg/l & kg/day)		E(2)		E(2)								
Coliform (Total) (MPN/100 ml) per req't						E(4)			(6)			
Fish Tox'y 96-hr. TL % Surv'l in undiluted waste			(3)									
Ammonia Nitrogen (mg/l & kg/day) (NH -N)			E						(6)			
Nitrate Nitrogen (mg/l & kg/day)												
Nitrite Nitrogen (mg/l & kg/day)												
Total Organic Nitrogen (mg/l & kg/day)												
Total Phosphate (mg/l & kg/day)												
Turbidity (Nelson Turbidity Unit)									(6)			
pH (units)				E					(6)			
Dissolved Oxygen (mg/l and % Saturation)									(6)			
Temperature (°C)									(6)			
Conductivity (mMho/cm)									(6)			
Secchi Disc (inches)									(6)			
Sulfides(if DO <5.0 mg/l) Total & Dissolved (mg/l)												
Arsenic (mg/l & kg/day)			(3)									
Cadmium (mg/l & kg/day)			(3)									
Chromium, Total (mg/l & kg/day)			(3)									
Copper (mg/l & kg/day)			(3)									
Cyanide (mg/l & kg/day)			(3)									
Silver (mg/l & kg/day)			(3)									
Lead (mg/l & kg/day)			(3)									

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A-001		E-001		E-001-D				NP1	to NP	5		P
TYPE OF SAMPLE	C-X	G	C-X	G	C-X	G			G				O
Mercury (mg/l & kg/day)			(3)										
Nickel (mg/l & kg/day)			(3)										
Zinc (mg/l & kg/day)			(3)										
Phenolic Compounds (mg/l & kg/day)			(3)										
All Applicable Standard Observations			E										(7)
Bottom Sediment Analyses and Observations													
Polynuclear Aromatic Hydrocarbon (mg/l)			(3)										
Synthetic Organics by EPA Methods 624 and 625 (mg/l)													

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
 C-6 = composite sample - 6-hour
 C-X = composite sample - X hours
 (used when discharge does not
 continue for 24-hour period)
 Cont = continuous sampling
 DI = depth-intergrated sample
 BS = bottom sediment sample
 O = observation

TYPES OF STATIONS

I = intake and/or water supply stations
 A = treatment facility influent stations
 E = waste effluent stations
 N = receiving water stations
 P = treatment facilities perimeter stations
 L = basin and/or pond levee stations
 BS = bottom sediment stations
 G = groundwater stations
 OV = overflow stations
 S = shoreline stations
 B = beach stations

FREQUENCY OF SAMPLING

E = each occurrence
 H = once each hour
 D = once each day
 W = once each week
 M = once each month
 Y = once each year

2/H = twice per hour
 2/W = 2 days per week
 5/W = 5 days per week
 2/M = 2 days per month
 2/Y = once in March and
 once in September
 Q = quarterly, once in
 March, June, Sept.
 and December

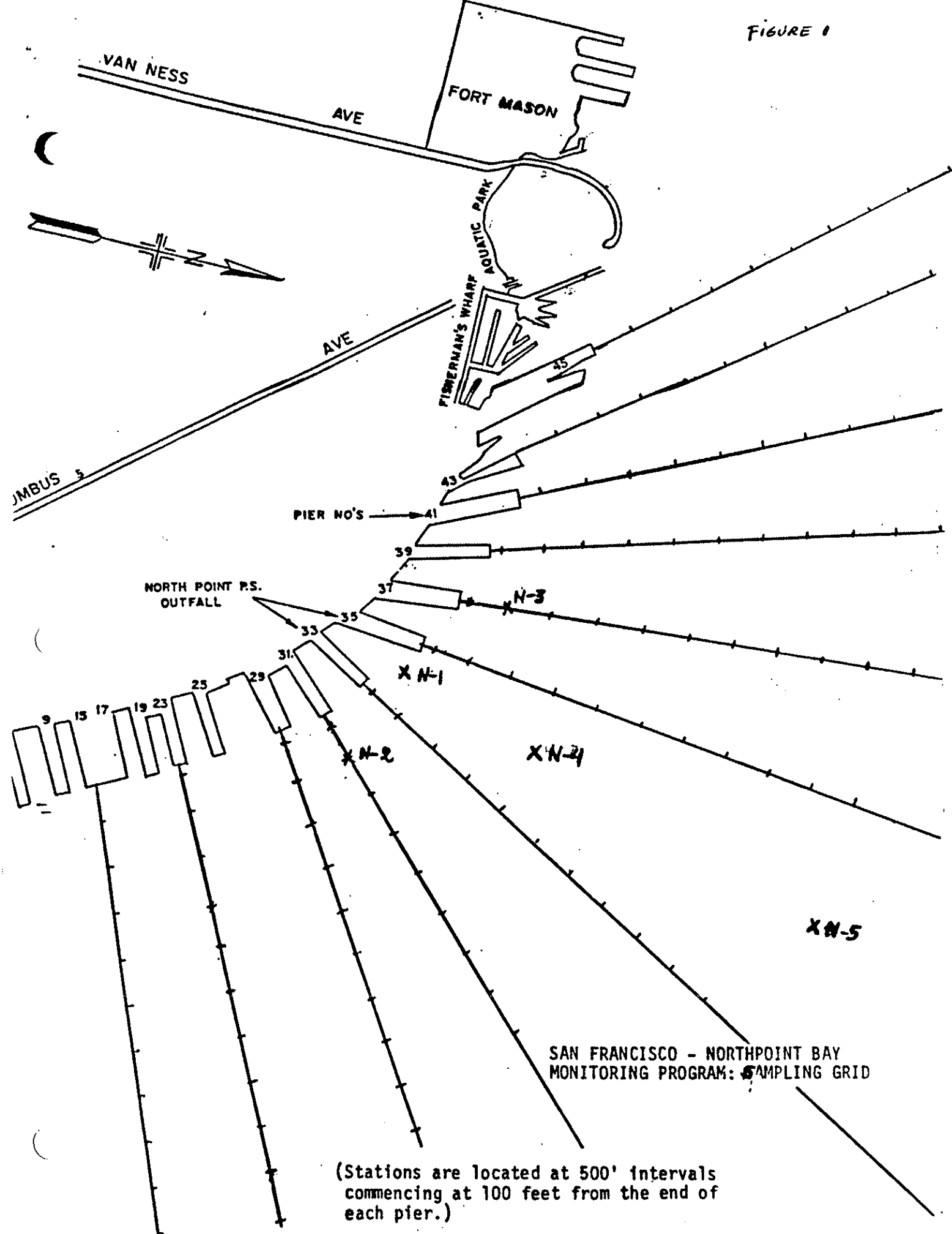
2H = every 2 hours
 2D = every 2 days
 2W = every 2 weeks
 3M = every 3 months
 Cont = continuous

NORTH POINT WATER POLLUTION CONTROL PLANT

Footnotes for Table I

- (1) Hourly for first four hours of discharge and every 6 hours thereafter.
- (2) Three grab samples taken at 2 hour intervals, collected in glass containers and analyzed separately. The weighted average, based upon flow rate, of the three samples shall be calculated.
- (3) Sample the first and second discharge event of the season, 2 winter events in December or January and 2 spring events in March or April.
- (4) Sample shall be collected 4 hours \pm 30 minutes after discharge starts (between 4:00 AM and 5:00 PM); sample shall be collected first thing in the morning if the plant begins operation after 5:00 pm or before 4:00 am.
- (5) Receiving water sampling shall be performed within 48 hours of discharge from North Point Plant, whenever possible.
- (6) Water column samples of stations N-1 to N-5 up to 2/M during wet weather. Stations N-1 to N-5 should be sampled once on month before wet weather season starts (Oct.) and once one month after wet weather season ends (May).
- (7) 2/M during wet weather.

FIGURE 1



SAN FRANCISCO - NORTHPOINT BAY
MONITORING PROGRAM: SAMPLING GRID

SAN FRANCISCO BAY

- LEGEND:
- INTERCEPTOR SEWER
 - FORCE MAIN
 - TRANSPORT/STORAGE FACILITIES UNDER CONSTRUCTION
 - FORCE MAIN UNDER CONSTRUCTION
 - N-4 CONTRACT DESIGNATION
 - OVERFLOW LOCATION
 - TREATED EFFLUENT DISCHARGE
 - DRAINAGE BASIN
 - BOUNDARY

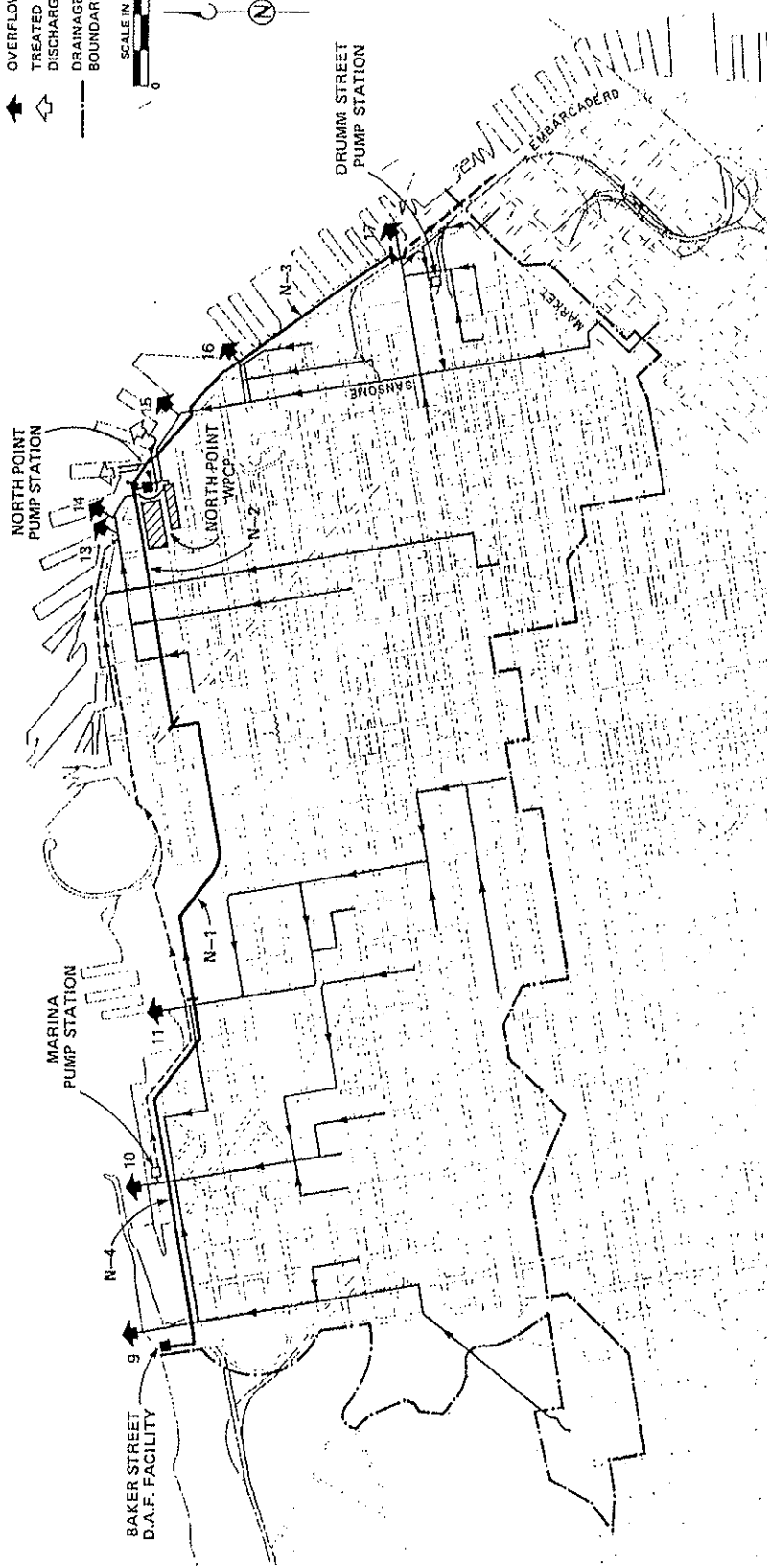
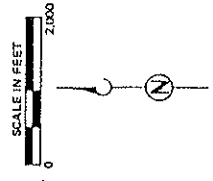


Figure A North Shore Basin Boundaries and Sewerage System

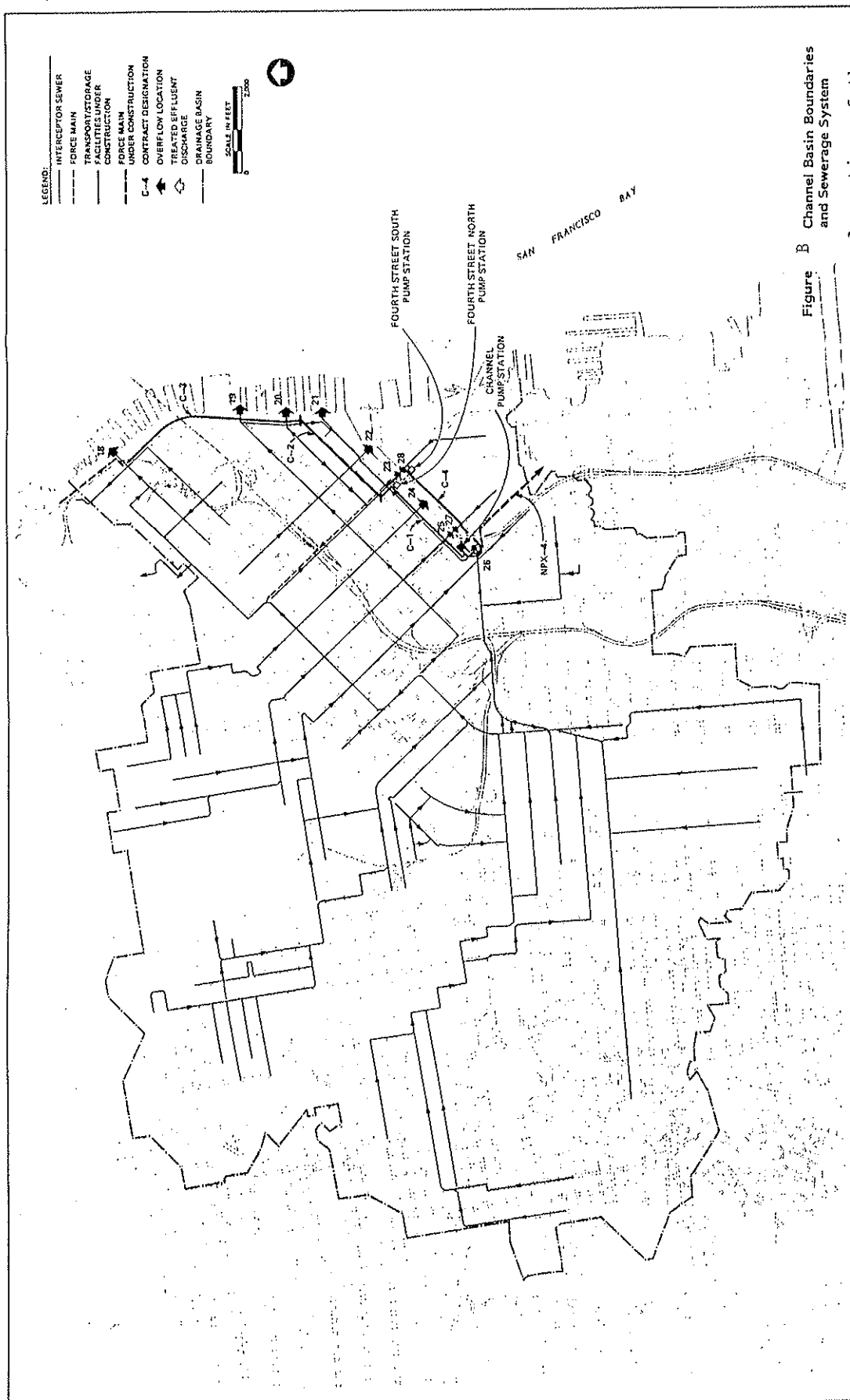


Figure B Channel Basin Boundaries and Sewerage System

A portion of the wet weather flow goes to NPWPCP.